Welcome to the Biweekly Restoration Information Update Page. This web site

- Provides current information on wetland and river corridor restoration projects
- Recognizes outstanding restoration projects
- Provides a forum for information sharing

We welcome the submission of articles and announcements related to your restoration project. Just send your write-up to EPA's contractor at restorationupdate@tetratech-ffx.com or mail it to Kathryn Phillips, Biweekly Restoration Update Coordinator, Tetra Tech, Inc., 10306 Eaton Place, Suite 340, Fairfax, VA 22030. We will carefully consider your submission for inclusion in a future update. If your submission is selected, please note that it might be edited for length or style before being posted. Because this web site is meant to be a public forum on restoration information, we cannot post any information that is copyrighted or information that serves or has the appearance to serve as advocating or lobbying for any political, business, or commercial purposes.

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Feature Article

The Serrano Creek Conservancy is Making a Difference

This article was excerpted from the California Coordinated Resource Management & Planning Council's Summer 2001 Newsletter, The CRMP Connection (Volume 15).

Homes line both sides of the urban Serrano Creek in Lake Forest, California. The Serrano is one of the few creeks in Orange County that flow all year long. The homeowners love their creek and often enjoy Serrano Creek Park and the hiking trails that wind along the forests and urban scenery.

Local residents became concerned when the creek started to show signs of degradation and erosion. The city began to study the creek and discovered that sediment from the creek was piling up in Newport Beach Back Bay. The impetus for action was Mother Nature. In 1997—1998, a storm swept through, bringing 6 inches of rain in 24 hours. After the rainfall, the creek was left with 30-foot banks. According to Jan Beeler, Serrano Creek Conservancy secretary and project organizer, "the city and county were butting heads. They wanted to line the creek with concrete to

stop the erosion, but the homeowners wanted to keep the creek as natural as possible. As a response, we created the Conservancy, which could be a voice for the more than 5,000 homeowners that live along the creek."
Over the next year the County Flood Control Department and the city of Lake Forest met several times to develop a solution to slow the erosion. The Conservancy proposed rock vanes and bioengineering streambank restoration methods. The Conservancy organized a workshop for city and county planners and regulatory agency staff on alternative methods of streambank stabilization. When the Conservancy secured grant money from the California Department of Water Resources' Urban Streams Restoration Program to do work on Serrano Creek and its tributaries, the county and city became supporters. The Conservancy has since become primarily responsible for all restoration projects and associated mitigation.
The Conservancy's first project was on "Stinky Creek," a "creek" created by street runoff that flows directly into Serrano Creek. Stinky Creek got its name because it was full of old tires, trash, rock, and nonnative plants. On a November morning in 1999 the Conservancy president, Matt Rayl, Vice-President, Gary Beeler, and Jan Beeler arrived at the creek to work with volunteers to clean and plant along the creek. "It was great," said Jan Beeler. "Here we were expecting maybe 30 volunteers and weren't we surprised when 120 people, including the Mayor and members of the City Council, showed up! With so many people it took only 3 hours to plant 300 California native plants and trees." Now "Stinky Creek" is more affectionately called "Quiet Oak Creek."
After such success the Conservancy gained more recognition as an effective and dedicated organization. They established a California native nursery on the Serrano Creek Ranch and Stables, which is owned by the Conservancy's president. They have since used these plants and trees for their Valentine's Day Oak Planting in Serrano Creek Park.
Looking into the future, the Conservancy is planning projects at Serrano Creek Park in which they will remove some of the nonnative eucalyptus forest and diversify the forest with native species. In addition, on Serrano Creek they will try rock weirs and a combination of plantings, geo-web, and rock vanes with drop structures to reduce the erosion, slow the water, stabilize the creek banks, and provide habitat. For more information please contact The Serrano Creek Conservancy at 949-768-5921 or e-mail: jgbeeler@home.com. Vist the the California Coordinated Resource Management & Planning Council's site at http://www.crmp.org/.
If you'd like your project to appear as our next Featured Article, e-mail a short description to restorationupdate@tetratech-ffx.com.

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Five-Star Restoration Projects Update

The goal of EPA's Five-Star Restoration Program is to bring together citizen groups, corporations, youth conservation corps, students, landowners, and government agencies to undertake projects that restore streambanks and wetlands. The program provides challenge grants, technical support, and peer information exchange to enable community-based restoration projects. A few five-star restoration projects are being revisited to see if the modest amount of funding (between $5,000 and $20,000) has helped the local restoration partners achieve their goals.
Project Name: Kelp Habitat Restoration
Five-Star Grant: $11,000
Grant to: Orange County CoastKeeper
Project Location: Alpharetta, Georgia Corona Del Mar and Laguna Beach, California
Original Project Description:
The Orange County CoastKeeper, in partnership with the Orange County Regional Occupation Program, the Santa Monica CoastKeeper, Coastal Marine Technology, Alliance to Rescue Crystal Cove, and Environment Now, is working to begin a community-based Kelp Habitat Restoration Project. Kelp beds located along the Southern California coasts provide critical habitat for more than 800 marine species but are in severe ecological distress. The project will involve kelp restoration of three to five 1,000-square-foot sections in the Crystal Cove State Park Marine Preserve. A team of trained divers will restore the area with kelp plants grown by students from several Orange County schools. Each section will be maintained and tracked for growth by a

team of community divers, as well as by students, through underwater and aerial photographs. The National Marine Fisheries Service Community-Based Restoration Program is providing partial funding for this grant.

Project Update:

CoastKeeper has been highly successful in reestablishing kelp. Trained divers were able to transplant kelp from the few remaining healthy beds to barren reefs along the coast. They also developed a system to grow kelp in the lab and transplant it to reefs along the coast. As a result of the project, the restored kelp beds are thriving and have canopies on the surface of the water. The restoration of the kelp beds is essential to the preservation of diverse populations of native fish species. Since the beginning of the restoration project, the Fish and Wildlife Service and the Department of Fish and Game have both documented increased size and numbers of fish living in the kelp beds.

To achieve this success, CoastKeeper overcame multiple obstacles. The coastal reefs where the kelp is planted are overwhelmed by large numbers of sea urchins because of the lack of otters and other natural predators that feed on the urchins. In early transplant attempts, the oversized sea urchin populations quickly consumed the small, newly planted kelp plants. Coastkeeper developed a system of suspending the kelp over the reefs, out of reach from the urchins, until the plants became larger and healthier. Divers then lowered the fully grown plants onto the reef, and the kelp was able to successfully establish itself despite urchin populations. Moon perch, fish commonly found in coastal reefs, presented another challenge: they completely stripped the sparsely planted kelp plants from early transplant efforts. The CoastKeeper team was also able to overcome this obstacle by modifying their transplant procedure. They moved larger bunches of kelp from healthy beds to the transplant sites and found that the moon perch were not able to destroy the larger kelp populations.

CoastKeeper has been able to take this success into the community by developing a "kelp cart." The cart is a mobile kelp display that CoastKeeper uses to educate local schoolchildren about the importance of kelp in aquatic habitats. Students are taught that just as animals need forests to survive, fish need beds of kelp. The curriculum has resulted in wider understanding of the need for kelp beds. Also, with the increasing cost of field trips, the "kelp cart" program benefits schools by bringing the field trip to the school.

Orange County CoastKeeper is continuing its restoration work with a 3-year grant from the National Oceanic and Atmospheric Administration (NOAA). In addition, NOAA has furnished CoastKeeper with a lab on Terminal Island in Longbeach to continue growing kelp. For more information, visit the web site www.coastkeeper.org.

Project Name: Blind Creek Park—Sea Turtle Habitat Restoration

Five-Star Grant: $8,000

Grant to: St. Lucie County Board of County Commissioners

Project Location: Fort Pierce, Florida

Original Project Description:

Blind Creek Park consists of approximately 408 acres of coastal barrier island, which has been identified as a biodiversity "hot spot" for a variety of species in Florida, including the West Indian manatee and the Atlantic green turtle. The coastal barrier islands have been particularly disturbed by the spread of invasive nonnative species, which has adversely affected habitat for the Atlantic loggerhead turtle, the Atlantic green turtle, and shorebirds. St. Lucie County, with support from the South Florida Water Management District and federal agencies, will work with local citizen groups, Girl Scout and Boy Scout programs, and schools to remove nonnative plants and revegetate the native dune and coastal strand vegetation of Blind Creek Park. Through this project the community will learn about the importance of protecting critical habitat and water quality. Partial funding for this grant is being provided by the National Marine Fisheries Service Community-based Restoration Program.

Update:

With the combined funds awarded through the Five-Star project and state and federal partnerships, the county and local volunteer partners initiated the task of revegetating the dune and coastal strand communities. Local Girl Scout and Boy Scout groups planted 6,100 native plants purchased with Five-Star funds. The county also purchased public awareness signs with Five-Star funds and installed the educational signs at each planting location.

For more information on EPA's Five-Star grant program, visit http://www.epa.gov/owow/wetlands/restore/5star/.

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Community-Based Restoration Partnerships

Tennessee's Third Annual Stream Cleanup Is a Success

This summer, more than 400 volunteers from around Tennessee came together to get dirty to clean up the environment. Saturday, June 9, 2001, marked the 3rd Annual Stream Cleanup hosted by the Tennessee Department of Environment and Conservation (TDEC). TDEC Environmental Assistance Centers in Memphis, Jackson, Columbia, Nashville, Chattanooga, Cookeville, Knoxville, and Johnson City held events and invited local employees, friends, and family to come out and make a difference for the environment.

Volunteers filled hundreds of garbage bags with trash and debris removed from the streams. Miles of streams are now flowing more freely thanks to the efforts of willing residents. Trash found in streams ranged from bottles and cans to microwaves, car batteries, hot water heaters, and even a kitchen sink. TDEC Commissioner Milton H. Hamilton, Jr., challenged citizens to "keep Tennessee beautiful between now and our next stream cleanup by disposing of trash properly." Based on the success of this effort and past cleanups, TDCE is planning to continue to raise environmental awareness through annual stream cleanup days. To learn more about TDCE, visit their web site at http://www.state.tn.us/environment.

Large Grant Jump-Starts Restoration in Philadelphia Parks

Philadelphia's Fairmount Park is an urban park system that encompasses one-tenth of the land in the city of Philadelphia. Over half of this land is unimproved natural areas such as stream corridors, woodlands, meadows, and wetlands. Over the years these areas have been degraded by storm water runoff, urban pollution, invasion of exotic species, and soil compaction resulting in the loss of plant species. To restore the park system to its native beauty and preserve it for the enjoyment of future generations, the William Penn Foundation provided a 5-year, $26.6 million grant to create the Natural Lands Restoration and Environmental Education Plan (NLREEP). Under the grant, a master plan for restoration was developed for seven parks—Franklin Delano Roosevelt, Cobbs Creek, Fairmount (East/West), Tacony Creek, Pennypack, Poquessing Creek, and Wissahickon Valley. The restoration plan, prepared by Patrick Center for Environmental Research scientists, park staff, and interested community members, outlines restoration goals and provides recommendations for high-priority restoration sites and actions.

NLREEP staff then hired contractors and organized volunteer events to address the high-priority restoration needs. Since 1997, 1,363 volunteer events have taken place attended by some 27,500 volunteers. During these events, volunteers planted more than 7,500 shrubs and 2,000 herbaceous plants and removed close to 26,500 bags of trash. Contractors also have made remarkable progress planting approximately 17,000 trees and shrubs and 38,000 herbaceous plants. The combined efforts of contractors and volunteers have resulted in the restoration of close to 2,000 linear feet of waterway. For more information, visit the NLREEP web site at http://www.nlreep.org.

If you are part of an innovative community-based partnership that is working to restore river corridors or wetlands, we'd like to hear from you. Please send a short description of your partnership to restorationupdate@tetratech-ffx.com.

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Achieving Restoration Results

Anchorage Waterways Council Makes Visible Improvements in Alaska's Waterways

The Anchorage Waterways Council is a grassroots organization dedicated to the protection, restoration, and enhancement of Alaska's waterways. The Council works with the U.S. Fish and Wildlife Service, the Alaska Department of Fish and Game, and the U.S. Army Corps of Engineers to achieve stream restoration for degraded streams around Anchorage.

In August 2001 the Alaska Department of Fish and Game asked the Council for help in cleaning up a stretch of Little Campbell Creek. Debris in the creek was flooding a nearby public trail. Catherine Moncrieff of the Council enlisted the help of two high school classes from the King Career Center. The students enthusiastically removed the lumber and debris blocking the stream. Soon the water that had backed up behind the debris began to flow freely. Students exploring the newly exposed trail rescued smolt stranded on the banks as the water receded. The students found a great sense of satisfaction in returning the stranded salmon to the stream. The cleanup day increased the students' awareness of the need for clean, free-flowing streams, and some students expressed a desire to help the Council with future cleanup activities.

The Anchorage Waterways Council is also working on some long-range challenges, the largest of which is the restoration of Ship Creek, an urban stream running through Anchorage. Their goals include (1) removing three culverts at the mouth of the stream that inhibit fish access, (2) removing three dams on the lower portion of the creek to help salmon reach 12 miles of additional habitat, and (3) protecting the cold-water fishery from possible thermal pollution from industry. To date the Council has secured funding from the U.S. Fish and Wildlife Service and Alaska Conservation Foundation to hire permanent staff for the project and has entered into discussions with industrial property owners along the creek about the restoration activities proposed for the creek. For more information about the work under way by the Council, visit www.anchwaterwayscouncil.org.

When the fencing was first installed, gaps were left to allow cattle and wildlife to access the stream for drinking water. A grant of $19,800 received in December 1998 from the Arizona Water Protection Fund (AWPF) allowed Crosswhite to install alternative watering systems. These reliable watering systems allowed Crosswhite to close the gaps in the riparian fencing, further protecting the newly established riparian vegetation from cattle and wildlife. AWPF was so impressed by the success of the alternative watering systems that they extended an additional $30,000 grant for the installation of additional watering systems along elk migration routes on Crosswhite's property.

New Wetlands Improve Habitat and Water Quality in Minnesota Park

A little over 2 years ago, eighth-grade science students from South View Middle School in Edina, Minnesota, helped break ground for a lake restoration and wetland construction project. The students gathered in Pamela Park with Edina Mayor Dennis Maetzold, other city officials, and personnel from the Minnehaha Creek Watershed District. The wetland creation project is part of a comprehensive plan developed by the city of Edina and the Minnehaha Creek Watershed District to address water quality and wildlife habitat concerns for Pamela Lake Park and the Minnehaha Creek watershed.

Pamela Park is a 64-acre city park located in Edina, Minnesota, a suburb of Minneapolis. Before the suburban growth of Edina, the park was a lake and wetland complex that served as a natural water filter for water entering Minnehaha Creek. Development reduced the size of the wetland areas and increased the accumulation of sediment in the lake. Currently runoff from more than 500 acres of residential development drains through the park.

The partnership designed the lake restoration and wetland construction project to filter runoff and improve water quality and wildlife habitat in the park. Contractors divided the project into two phases. Phase 1 completed during the winter of 2000—2001, consisted of dredging the lake to remove phosphorus-laden sediment and increase the lake's depth from 4 to 8 feet. The dredging was scheduled for the winter to minimize affects on area wildlife. Phase 2, completed in summer 2001, consisted of the construction and landscaping of three wetland ponds at the north end of the lake. Area students helped plant native trees, shrubs, and prairie grasses and wildflowers to increase the filtering power of the wetlands, improve wildlife habitat, and add to the aesthetic beauty of the park.

This project was made possible through a partnership between the city of Edina and the Minnehaha Creek Watershed District. The partnership hired Wrenk Associates, Barr Engineering, and Richard Knutson, Inc. to complete project engineering, landscaping, and construction. For more information, visit http://www.minnehahacreek.org/f-Projects.htm.

If you are part of an innovative restoration project that has had positive results, we'd like to hear from you. Please send a short description of your project to restorationupdate@tetratech-ffx.com.

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Funding for Restoration Projects

New Listings:
Erosion and Sediment Control Funding Available for Great Lakes Basin
The Great Lakes Basin Program for Soil Erosion and Sediment Control helps fund erosion prevention and sediment control projects. Since 1991 the Great Lakes Basin Program has supported 182 projects totaling almost $5.25 million.
The Great Lakes Basin Program's FY2002 request for proposals is now available from the Great Lakes Commission. Eligible applicants include units of state, county, and municipal government; tribal authorities; watershed councils; soil and water conservation districts; academic institutions; environmental groups; and other nonfederal public entities or nonprofit organizations in the United States. Applications are due by 6 p.m. (EST) on Jan. 16, 2002, and must be submitted electronically. Requests for proposals are available at http://www.glc.org/basin/RFP.html. Please contact Tom Crane with questions at tcrane@glc.org or 734-665-9135.
Watershed Protection and Flood Prevention Programs
The small watershed program is designed to help the government protect citizens from the economic and soil losses related to flood events. This program provides technical and financial assistance to local organizations that represent people living in small watersheds. Eligible projects include watershed protection, flood prevention, erosion and sediment control, fish and wildlife habitat enhancement, and wetland creation and restoration in watersheds of 250,000 or fewer acres. Information about this program can be obtained through the USDA Natural Resources Conservation Service or by visiting the USDA web site (http://www.nrcs.usda.gov) and clicking on "watershed protection and flood prevention" under the programs menu.
Please send any news you have on funding mechanisms available to local community organizations to restorationupdate@tetratech-ffx.com.

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News and Announcements

Bay Leaders Adopt Three Agreements Curbing Impacts of Development on the Chesapeake Bay
Three new cooperative agreements, targeting regional planning, storm water management, and low-impact development, were adopted by the Chesapeake Executive Council at their December 3, 2001, annual meeting. The first agreement focuses on developing new technology to reduce storm water pollution and enhance existing storm water management practices on government-owned lands. EPA Administrator Christine Todd Whitman commented, "We can't stop development from happening, but we can minimize its impact on the Bay. The Storm Water Directive signed today is a great example of government taking the lead and being responsible stewards of our lands." The storm water management program aims to improve the health of urban waterways by reducing the amount of pollutants carried by runoff water into lakes and streams.
Officials from the District of Columbia, the state of Maryland, and Montgomery and Prince George's counties also signed a regional pact aimed at improving water quality. The 2001 Anacostia Watershed Restoration Agreement sets goals to restore water quality and living resources in the Anacostia basin, one of the most degraded rivers in the Chesapeake Bay watershed. Restoration efforts will include creating riparian forest buffers, decreasing impervious surface area through low-impact development, and establishing active river advocacy groups in each major Anacostia subwatershed.
Officials from the District of Columbia, the state of Maryland, and Montgomery and Prince George's counties also signed a regional pact aimed at improving water quality. The 2001 Anacostia Watershed Restoration Agreement sets goals to restore water quality and living

resources in the Anacostia basin, one of the most degraded rivers in the Chesapeake Bay watershed. Restoration efforts will include creating riparian forest buffers, decreasing impervious surface area through low-impact development, and establishing active river advocacy groups in each major Anacostia subwatershed.

Private interests were also involved in agreements to reduce the impact of development on the bay. Alliance for the Chesapeake Bay, the Center for Watershed Protection, and the National Association of Home Builders signed an agreement launching the Builders for the Bay Program. This voluntary partnership will encourage the implementation of site design principles that benefit local water quality and the Chesapeake Bay. Virginia Governor James Gilmore noted, "Local communities, businesses, developers, and average citizens all have a role in lessening their impact on our waters throughout the Chesapeake Bay watershed. It is only through sharing this commitment that we will restore this national treasure."

These partnerships demonstrate the willingness of all aspects of the community, from government to industry to the average citizen, to join together to help reduce the impact of development on the Chesapeake Bay. Because development and the growth of urban areas within the Bay's watershed cannot be stopped, it is necessary that the community continue to work together to reduce development's impact as much as possible. For more information about agreements signed at the Chesapeake Executive Council's annual meeting, visit the Chesapeake Bay Program's on-line Press Center at http://www.chesapeakebay.net/press.htm.

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Upcoming Conferences and Events:

NEW LISTINGS:

Enhancing the States' Lake Management Programs: Managing Invasive Species in Lakes and Reservoirs

April 23–26, 2002

Chicago, IL

State lake program managers, statewide lake associations, volunteer monitors, and federal and local mangers are invited to this national meeting to discuss successes, evaluate obstacles, and explore new approaches for improving state lake management programs. This year's theme is invasive species and their management. Registration is $165 until March 29. For more information, contact Bob Kirschner, Chicago Botanic Garden, bkirschn@chicagobotanic.org, 847-835-6837.

Chesapeake Bay Watershed Restoration Conference: Riparian and Wetland Stewardship

September 24–26, 2002

Baltimore, Maryland

Vital efforts are under way in the Chesapeake Bay region to work at a watershed level to protect and restore wetland and riparian habitats. This conference will allow people to share critical information regarding watershed conditions, riparian and wetland restoration science, and the tools and techniques used for watershed restoration. Much of the information to be presented will apply to wetlands nationwide. State and federal employees, members of conservation organizations, firms, citizen groups, and universities are encouraged to attend. This conference is sponsored by the Potomac Watershed Partnership of Ducks Unlimited, USDA Forest Service, Maryland DNR Forest Service, and Virginia Department of Forestry, in conjunction with the Chesapeake Bay Foundation and Stroud Water Research Center. To register contact Hannah Kirchner, Conference Coordinator, Chesapeake Bay Conference, P.O. Box 144, Paoli, IN 47454. Phone: 812-723-0088; fax: 812-723-2078; e-mail: hannahk@kiva.net.

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PREVIOUS LISTINGS

Northwest Stream Restoration Design Symposium

January 31—February 2, 2002

Skamania Lodge, Washington

The Center for Water and Environmental Sustainability; the Civil, Construction, and Environmental Engineering Department at Oregon State University; and the City of Portland's Bureau of Environmental Services are sponsoring this symposium to advance the state of practice for professionals involved in stream restoration projects. The symposium will focus on restoration questions of concern to project planners, designers, managers, regulators, and

owners. The program addresses urban stream restoration; use of wood versus rock in stream restoration projects; stream restoration design approaches, methods, and analyses; adaptive management during construction and thereafter; and dam removal and reestablishment of a riparian environment. Emphasis is placed on constructed projects and the lessons learned that can be used in other projects. For more information, visit www.cwest.orst.edu.

Eleventh International Conference on Aquatic Invasive Species
February 26—March 1, 2002 (rescheduled)
Alexandria, VA
This annual 4-day conference presents a comprehensive forum for the review of accumulated scientific knowledge and presentation of field research related to aquatic invasive species. New technological developments for prevention, monitoring, control, and mitigation of invasive species will be presented along with a discussion of policy, legislation, public education, and outreach initiatives. Registration and program information is available at the conference web site at http://www.aquatic-invasive-species-conference.org.

To post your restoration news and announcements, please send information to restorationupdate@tetratech-ffx.com.

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Restoration-Related Web Sites

Let us know about your restoration-related web site. Please send relevant URLs to restorationupdate@tetratech-ffx.com.

www.epa.gov/ecocommunity/news.htm

> ***Community-Based Environmental Protection News On-Line*** **(CNO)** is a periodic electronic information bulletin from EPA's Office of Policy, Economics, and Innovation. It includes information on outstanding community-based projects, links to other environmental protection resources, conferences, and publications. *This site is a good source of encouraging information about communities working together for environmental protection*.

www.theramp.net/inhswaterfowl

> **The Frank C. Bellrose Waterfowl Research Center** has conducted extensive studies relating to wetlands, waterfowl, and the river environment. The Center has given special emphasis to studies on waterfowl biology and management, the effects of sedimentation on aquatic habitats, and lead poisoning in waterfowl. *This site provides information on current research being conducted by the Center, access to waterfowl inventories, and a list of related links*.

www.streamrestorationinc.org

> **Stream Restoration Incorporated** is a nonprofit organization whose mission focuses on the restoration of streams impacted by abandoned coal mine drainage. This Pennsylvania organization has formed a public/private partnership to facilitate the work of stream restoration. *The web site provides useful information about recently completed projects, opportunities for public involvement, science fair project opportunities, and an on-line database containing restoration information*.

www.fxbrowne.com/html/Newsletters/news_july_st.htm

F.X. Browne, Inc.'s Monthly *Lake and Watershed News* contains articles about current restoration projects in the news, grant programs, events, and publications. F.X. Browne works extensively with lake and watershed management, water and wastewater engineering, environmental planning, and storm water management. *This web site would be especially useful for Pennsylvania residents seeking current restoration-related information*.

http://sjr.state.fl.us./programs/outreach/pubs/streamln

Streamlines is a quarterly publication from the St. John's Water Management District in Florida. The articles address a variety of water-related topics in Florida, including an artesian well plugging program, wetlands and their functions, an update of wetland restoration and water monitoring activities taking place in Florida counties, and updates describing large restoration projects. *This web site would be useful for anyone seeking updated information on St. John's Water Management District activities and current issues facing Florida's water quality*.

www.coastkeeper.org

The Orange County CoastKeeper works to protect and preserve Orange County's marine habitat and watershed through education, restoration, and enforcement. They have also recently received a Five-Star grant for a kelp restoration project off the California coast. This web site provides information on meetings, events, and volunteer efforts sponsored by CoastKeeper, as well as news articles about several nearby beaches and harbors. *This site would be useful for anyone wishing to get involved with CoastKeeper or anyone seeking information on kelp bed restoration*.

http://www.state.tn.us/environment/

Summary of Tennessee Environmental Policy provides a list of hot topics currently on the table at the Tennessee Department of Environment and Conservation. The list is published quarterly. *This site would be useful for anyone keeping up to date on current environmental policy*.

www.theconservationfoundation.org

The Conservation Foundation is proactive in protecting and enhancing rivers and watersheds by improving water quality and stream ecosystems, preserving stream corridors, and increasing citizen awareness. This is accomplished through watershed planning, management, and restoration. This Illinois-based organization has a conservation grant program, has worked to complete a Five-Star Restoration project, and sponsors other restoration activities. *This site would be useful for anyone involved with a restoration project seeking resources in Illinois*.

www.vom.com/sec

The Sonoma Ecology Center is a nonprofit organization working toward a condition of sustainable ecological health in the Sonoma Valley through community-supported research, education, restoration, and preservation. The Center offers Sonoma residents and visitors opportunities for discovering the beauty and natural resources of the valley. *This site provides opportunities for volunteers to take part in restoration activities in Sonoma Valley, California*.

www.anacostiaws.org

The Anacostia Watershed Society is dedicated to preserving the watershed of the Anacostia River and improving water quality in the river. Since its 1991 beginning, the Society has removed 225 tons of debris from the river, planted more than 10,000 trees, and involved close to 8,000 inner-city youth. *This site provides current activities and future plans of the Society, as well as an on-line version of the Society's newsletter*.

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Information Resources

Voluntary Estuary Monitoring: A Methods Manual
Published by U.S. EPA, 2001
Volunteer monitoring has become an integral part of the effort to assess the health of our nation's waters. Government agencies are increasingly interested in using volunteer data to supplement their own data collection efforts. This document, which presents information and methodologies specific to estuarine water quality, is useful for both the organizers of volunteer programs and the volunteers themselves. The first eight chapters of the manual address typical issues that a new or established volunteer estuary monitoring program might face, including understanding estuaries (what makes them unique, the problems they face, and the role of humans in solving the problems); establishing and maintaining a volunteer monitoring program; working with volunteers and making certain that they are wellpositioned to collect water quality data safely and effectively; ensuring that the program consistently produces data of high quality; and managing the data and making it available to data users. The remaining chapters focus on several water quality parameters that are important in determining the health of an estuary. The manual is available on-line at www.epa.gov/owow/estuaries/monitor .

Nonpoint Source Program Guidance
Provided by California's Southwest Regional Control Board, 1998
This guidance document contains information about management measures for agricultural areas, forests, urban areas, marinas, hydromodifications, and wetlands. Management measures include restoring riparian vegetation, public outreach, nutrient management, and revegetating disturbed areas. The guidance materials can be found at www.swrcb.ca.gov/nps/guidance.html.

Western Wetland Flora Field Office Guide to Plant Species

Managing Lakes and Reserviors
Published by the Terrene Institute and the North American Lake Management Society in cooperation with the U.S. EPA.
This 400-page citizen's guide teaches lakeside residents how to protect lakes and reservoirs. It is a citizen's guide with textbook information on how to protect lakes and reservoirs. Topics addressed include controlling algae, lake watershed management, the growth of aquatic plants, the impact of phosphorus, the benefits of barley straw, and predicting water quality.
Copies sell for $33.95 plus shipping, with special discounts available. For more information or to order a copy, phone 800-726-4853. Copies are also available from the North American Lake Management Society at www.nalms.org.

Saving America's Streams and Streamside Lands
Produced by Louis A. Helfrich and Virginia Tech/Virginia Cooperative Extension.
Streamside lands are among the most important remaining natural habitats in the nation. Streamside forests and grasslands protect water quality, slow soil runoff, reduce flooding, and provide excellent fish and wildlife habitat. House construction, land development, and water pollution continue to threaten our streams. This video provides information on how good farming practices, such as leaving a natural buffer strip and fencing livestock, can protect aquatic life and water quality. It also encourages Americans to adopt a local stream or become a stream watcher to help improve water quality. The video costs $10 and can be ordered from Virginia Cooperative Extension, 112 Landsdowne Street, Blacksburg, VA 24061; phone: 540-231-1325; e-mail:

monteh@vt.edu. For more information, visit
www.cnr.vt.edu/extension/fiw/fisheries/postersvideos/index.html.
If you'd like to publicize the availability of relevant information resources, please send information to restorationupdate@tetratech-ffx.com.